

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appellant : Stefan Kunz  
Serial No. : 10/575,434  
Filed : April 10, 2006  
TC/A.U. : 1651  
Confirmation No: 1858  
Examiner : S. R. Macauley

Docket No. : 06-226  
Customer No. : 34704

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313

APPEAL BRIEF

Sir:

This is an appeal to the Board of Patent Appeals and Interferences from the final rejection of claims 1, 2, 4-8, 10 and 15.

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REAL PARTY IN INTEREST

The real party in interest in this appeal is BIO-PROTECT GmbH, which is also the assignee of record of the application.

RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to Appellant, Appellant's legal representative, or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

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STATUS OF CLAIMS

Claims 1, 2, 4-8, 10 and 15 are pending in the application.  
Claims 3, 9, 11-14 and 16-22 have been cancelled.

Claims 1, 2, 4-8, 10 and 15 stand rejected and are on appeal.  
A true copy of these claims is attached hereto in Appendix A.

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STATUS OF AMENDMENTS

Appellant's amendment after final rejection filed on September 25, 2008 was entered by the Examiner for purposes of appeal.

SUMMARY OF CLAIMED SUBJECT MATTER<sup>1</sup>

The present invention relates to a method for controlling fire blight and a plant protection agent for controlling fire blight.

As set forth in claim 1 on appeal, the method for controlling fire blight comprises providing an acidic environment (see paragraph [0009], specifically lines 5 and 6 thereof) comprising (1) fungal structures selected from the group consisting of yeast cells, fungal spores and mixtures thereof, (see paragraph [0009], specifically lines 3-5 thereof) and (2) at least one of disodium hydrogen phosphate and sodium hydrogen carbonate (see for example, original claim 9) in an amount sufficient to maintain a pH of the acidic environment of between 3 to 6 (see paragraph [0009], specifically line 5) and applying the acidic environment to a plant (see paragraph [0010]).

As set forth in claim 2, the acidic environment is kept within a pH range of 3.6 to 4.0 (see paragraph [0009], specifically line 6). As set forth in claim 4, the method includes the step of adding blastospores of species *Aureobasidium pullulans* (see paragraph [0010], specifically line 4 thereof). As set forth in claim 5, the method includes adding yeast cells of the species *Metschnikowia pulcherrima* (see paragraph [0010], specifically line 5 thereof).

As set forth in claim 6, the method includes adding citric acid as an acidifier (see for example, original claim 8). As set forth in claim 7, the method includes adding whey powder (see for example, original claim 8).

As set forth in claim 8, the method includes adding (1)

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<sup>1</sup> The claimed subject matter will be described with reference to the published application, Published Application No. US 2007/0141031 A1.

blastospores or yeast cells, (2) citric acid and (3) whey powder (see original claim 8).

As set forth in claim 10, the method includes adding spores, conidia and budding yeast cells of filamentous fungi and yeast as fungal structures which are capable of multiplication (see original claim 10).

Independent claim 15 sets forth a plant protection agent for controlling fire blight, wherein 1 kg of product comprises  $2 \times 10^{11}$  to  $1 \times 10^{13}$  blastospores of the species *Aureobasidium pullulans*;  $2 \times 10^{11}$  to  $1 \times 10^{13}$  yeast cells of the species *Metschnikowia pulcherrima*; 100 g to 400 g citric acid; 50 g to 250 g disodium hydrogen phosphate; and 100 g to 500 g whey powder (see original claim 15).

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GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1, 2, 4-8, 10 and 15 stand rejected under 35 U.S.C. 103(a) as being unpatentable over JP06256125 in view of Siebold et al., and further in view of Jabar et al.



ARGUMENTS (S)

With respect to the rejection of claims 1, 2, 4-8, 10 and 15, it is submitted that the rejection fails for the following reasons. Independent method claim 1 claims a method for controlling fire blight. The method of claim 1 comprises providing an acid environment comprising (1) a fungal structure and (2) at least one of disodium hydrogen phosphate and sodium hydrogen carbonate in an amount sufficient to maintain a pH of the acidic environment between 3 to 6. The method includes applying the acid environment as set forth above to a plant for controlling fire blight.

The Examiner has provided as a basic reference a document as the primary reference which teaches a composition for treating crops in an effort to eliminate white root rot disease. The basic reference is not drawn to a method for controlling fire blight but rather white root rot. In addition to not being a method for controlling fire blight, the primary reference does not suggest an acidic environment which comprises fungal structures as claimed. Not only does the primary not teach the first component of the claimed acid environment, that is, the fungal structure, the primary reference does not teach the second component of the acidic environment, that is, at least one of disodium hydrogen phosphate and sodium hydrogen carbonate. At most, the Japanese document can be said to teach an acid composition which is to be applied as a liquid to crops to eliminate white root rot.

The secondary reference to Seibold et al. suggests that the fungi may inhibit growth of fire blight. The primary reference does not deal with fire blight but rather the treatment of white root rot. Why would one skilled in the art having the primary

reference in front of them look to the cited secondary reference which deals with fire blight? The answer is clear. Appellant's disclosure. Assuming that the inventor of the primary reference were to see the secondary reference, he would not pay any attention to the teachings of the secondary reference as it does deal with his problem, that being, white root rot.

The Examiner in response to the foregoing argument sets forth the following:

"...In response to applicant's arguments, it is noted that the motivation for combining the references has been provided in the previous office action. Specifically, one of ordinary skill in the art would have been motivated to combine the cited teachings because JP06256125 is directed to a composition comprising a fungus for administration to a plant for the treatment of a disease caused by a microorganism and Siebold teaches fungi which would be useful for the treatment of a disease caused by a microorganism. Thus, both teachings are directed to antimicrobial components that may be used in compositions for the treatment of a plant. Combining equivalents that are known to be useful for the same purpose constitutes prima facie obviousness (see MPEP 2144.06)."

It is submitted that the Examiner has erred and the Examiner's conclusion belies the concept as a whole clause of 35 U.S.C. 103. The relevant inquiry is "[would] an artisan of ordinary skill in the art at the time of the invention, confronted by the same problems as the inventor and with no knowledge of the claimed invention have selected the various elements from the prior art and combined them in the manner claimed." See *Princeton Biochemicals, Inc. v. Beckman Coulter, Inc.*, 411 F.3d 1332, 1337 (Fed. Cir. 2005). The answer in the instant case is "no". There is absolutely no reason for one of ordinary skill in the art to

consider the JP'125 reference, as it does not deal with or solve the problem of fire blight. JP'125 deals with the problem of white root rot. Because the problem which the invention is intended to solve does not exist in JP'125, the combination of references must fail.

The Examiner's noted motivation is so broad that it would cover the combination of any two references which taught the treatment of plants, regardless of the plant, regardless of the problem, regardless of the treatment. Such a motivation flies in the face of *Princeton Biochemicals, Inc. v. Beckman Coulter, Inc.* (*supra*).

The tertiary reference deals with a method for increasing crop yield. Again, this method has nothing to do with the method of the primary reference. The inventor of the primary reference, if he were to see the tertiary reference, would pay no attention to it, as the tertiary reference does not deal with his problem. Why does the Examiner combine the tertiary reference with the other two references cited? The answer is simple, Appellant's own disclosure teaches the combination.

The Examiner in his advisory action sets forth motivation as follows:

"...One would have been motivated to add the various components taught by Jabar to a plant treatment composition because JP06256125 teaches the use of an organic manure, preferably a material which can easily be made into a liquid, such as animal protein in the composition for the treatment of plants (abstract). Jabar teaches that whey is a suitable source of animal protein (or peptides) for a composition for the treatment of plants (par. 24). One of ordinary skill in the art would thus have recognized that whey would be desirable for use in the composition for the treatment of plants for

the prevention of microbial disease. Further, Jabar teaches that phosphates are useful in compositions for the treatment of plants because they are pH control agents (p. 3, par 34). The use of a buffer in a composition comprising biological material, such as microorganisms, or a composition with a predetermined pH, would be a matter of routine optimization for one of ordinary skill in the art. Further, regarding claim 15, the use of the claimed pH range, the use of the spores, conidia and budding yeast cells of the fungi, and the claimed concentrations of components would all have been matters of routine experimentation to one of ordinary skill in the art."...

Again, the Examiner's basis for motivation fails to test for combining references as set forth in *Princeton Biochemicals, Inc. v. Beckman Coulter, Inc. (supra)*. Again, the relevant inquiry is "[would] an artisan of ordinary skill in the art at the time of the invention, confronted by the same problems as the inventor and with no knowledge of the claimed invention have selected the various elements from the prior art and combined them in the manner claimed." The answer in the instant case is "no". There is absolutely no reason for one of ordinary skill in the art to consider the JP'125 reference, as it does not deal with or solve the problem of fire blight. JP'125 deals with the problem of white root rot. Because the problem which the invention is intended to solve does not exist in JP'125, the combination of references must fail.

With regard to independent claim 15, there is nothing in the subtotal teachings of the prior art which would suggest the composition claimed in independent claim 15. The Examiner's rejection of claim 15 fails for the same reasons set forth above with regard to independent claim 1.

CONCLUSION

For the foregoing reasons, the Board is hereby requested to reverse the Examiner's rejections of record and remand the instant application to the Examiner for allowance and issue.

APPEAL BRIEF FEE

The Director is hereby authorized to charge the appeal Brief Fee in the amount of \$270.00 to Deposit Account No. 02-0184.

Should the director determine that an additional fee is due, he is hereby authorized to charge said additional fee to Deposit Account No. 02-0184.

Respectfully submitted,

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Date: February 18, 2009

CLAIMS ON APPEAL - APPENDIX A

1. A method for controlling fire blight, comprising providing an acidic environment comprising (1) fungal structures selected from the group consisting of yeast cells, fungal spores and mixtures thereof, and (2) at least one of disodium hydrogen phosphate and sodium hydrogen carbonate in an amount sufficient to maintain a pH of the acidic environment between 3 to 6; and applying the acidic environment to a plant.
2. The method as claimed in claim 1, characterized in that the acidic environment is kept within a pH range of 3.6 to 4.0.
4. The method as claimed in claim 1, including the step of adding blastospores of the species *Aureobasidium pullulans*.
5. The method as claimed in claim 3, including adding yeast cells of the species *Metschnikowia pulcherrima*.
6. The method as claimed in claim 1, including adding citric acid as acidifier.
7. The method as claimed in claim 1, including adding whey powder.
8. The method as claimed in claim 1, including adding (1) blastospores or yeast cells, (2) citric acid and (3) whey powder.
10. The method as claimed in claim 1, including adding spores,

conidia and budding yeast cells of filamentous fungi and yeast as fungal structures which are capable of multiplication.

15. A plant protection agent for controlling fire blight, wherein 1 kg of product comprises:

$2 \times 10^{11}$  to  $1 \times 10^{13}$  blastospores of the species *Aureobasidium pullulans*;

$2 \times 10^{11}$  to  $1 \times 10^{13}$  yeast cells of the species *Metschnikowia pulcherrima*;

100 g to 400 g citric acid;

50 g to 250 g disodium hydrogen phosphate; and

100 g to 500 g whey powder.

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EVIDENCE - APPENDIX B

NONE



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RELATED PROCEEDINGS - APPENDIX C

NONE